

G. Leffers

1636

CH Errors Corrected by the STIC Systems Branch

Serial Number: 09/430,590 E

CRF Processing Date: \_\_\_\_\_

Edited by: \_\_\_\_\_

Verified by: \_\_\_\_\_ (STIC staff)

Changed a file from non-ASCII to ASCII

Changed the margins in cases where the sequence text was "wrapped" down to the next line. #20

Edited a format error in the Current Application Data section, specifically: **ENTERED**

---

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_

Added the mandatory heading and subheadings for "Current Application Data".

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_

---

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_

---

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_

---

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_

---

Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_

---

Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  page numbers throughout text;  other invalid text, such as \_\_\_\_\_

Inserted mandatory headings, specifically: \_\_\_\_\_

---

Corrected an obvious error in the response, specifically: \_\_\_\_\_

---

Edited identifiers where upper case is used but lower case is required, or vice versa.

Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_

---

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_

Other: *Authorized edit. Inserted <220> to <223> information for sequence # 150*

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1636

RAW SEQUENCE LISTING DATE: 05/09/2001  
PATENT APPLICATION: US/09/430,590E TIME: 12:13:03

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

3 <110> APPLICANT: Poulter, et al.  
5 <120> TITLE OF INVENTION: UNUSUAL RETROTRANSPOSON FROM THE YEAST CANDIDA ALBICANS  
7 <130> FILE REFERENCE: 674521-2001.1  
9 <140> CURRENT APPLICATION NUMBER: 09/430,590E  
10 <141> CURRENT FILING DATE: 1999-10-29  
12 <150> PRIOR APPLICATION NUMBER: 60/106,342  
13 <151> PRIOR FILING DATE: 1998-10-30  
15 <160> NUMBER OF SEQ ID NOS: 156  
17 <170> SOFTWARE: PatentIn version 3.0  
19 <210> SEQ ID NO: 1  
20 <211> LENGTH: 388  
21 <212> TYPE: DNA  
22 <213> ORGANISM: Candida albicans  
24 <300> PUBLICATION INFORMATION:  
25 <308> DATABASE ACCESSION NO: AF043301  
26 <309> DATABASE ENTRY DATE: 1998-07-21  
27 <313> RELEVANT RESIDUES: (1)..(388)  
29 <400> SEQUENCE: 1  
30 tgttcgctat agagagattt cctagccgga atgcacgaca atcctgagac ggaagtgcat 60  
32 cgtcgatgcc catggtgctgt ggtaaaaat ttcttagaa aatttgttct ttccttcaac 120  
34 tgcttttaag aaagagaggt tcaagtggtt taagtacgac ggtcacaaag attgcggctt 180  
36 atgaggcccg aactgagttg aaatacataaa tcaagatata attatataacc ttacttgtcc 240  
38 atattgtttt ataatacatt cttcagatat ttaaatttct gtgtatcaac ctataaaaca 300  
40 gagatacatt cagtgcattt agtatactga gtgaactggg acctgtgaca ttcaagataa 360  
42 ctgtttcgcg cacgctggca gacgaaca 388  
45 <210> SEQ ID NO: 2  
46 <211> LENGTH: 400  
47 <212> TYPE: DNA  
48 <213> ORGANISM: Candida albicans  
50 <300> PUBLICATION INFORMATION:  
51 <308> DATABASE ACCESSION NO: Y08494  
52 <309> DATABASE ENTRY DATE: 1997-08-27  
53 <313> RELEVANT RESIDUES: (1)..(400)  
55 <400> SEQUENCE: 2  
56 cgggttaatg tatatttcga ctgcaggac ctatagaaca gctgttagatg taaaactaa 60  
58 tatgaagaac tggaaaaaca ataacttcta ttctgactct gattctgtat gaaaactaac 120  
60 tgaagaaaag aatataaaaaa tataaaaatataaataaagaaagac aaaggagaat ctctgaccct 180  
62 tatatagacc gaaaactaga gtgacgatga accatcagac cagtcaataa ccaactaatt 240  
64 taataatatac aataactcgta ctaacgaggt gtaaacaataa taccgaaaat agaaatataa 300  
66 ataactcaat gccaagatgg tgcgcaacca ccaaggtaat aaacaaccaa tagaaccaag 360  
68 aattgttaat cagacaacga gcaaggctga ttataacaaca 400  
71 <210> SEQ ID NO: 3  
72 <211> LENGTH: 6426  
73 <212> TYPE: DNA  
74 <213> ORGANISM: Candida albicans  
76 <220> FEATURE:  
77 <221> NAME/KEY: CDS

See P. 5

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001  
TIME: 12:13:03

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

78 <222> LOCATION: (398)..(1372)  
79 <223> OTHER INFORMATION: ORF1 coding sequence for gag  
82 <220> FEATURE:  
83 <221> NAME/KEY: CDS  
84 <222> LOCATION: (1373)..(6103)  
85 <223> OTHER INFORMATION: ORF2 - coding sequence for pol  
88 <400> SEQUENCE: 3

89	tgtgggttg	tgcactattt	tgtgtcagaa	actgatcaat	gaaaatgatg	gttattatga	60
91	gaatggaaaa	ttttccatc	acacatcagg	tgtgacaga	actaaactat	atttgtgt	120
93	ataaataagg	gtatgaaata	ccaacatccc	agaatatcaa	cgagatagaa	gggaggagtt	180
95	tcaatatata	tcttgtgaat	aataacttcg	ttctaattca	ctatacacaa	ctagacgtgt	240
97	acacgctcaa	tctcaggtaa	agaaaagttt	tattccatca	gattagaagt	cgatagtgtat	300
99	aatcatttcg	tcccaaatta	gcgttgtata	aattcagtcc	ttagatgtt	attattgatt	360
101	gatagtttcg	aagtttgaag	gtacagaatt	tcacaag	atg	agt tcc gca aag aat	415
102				Met	Ser	Ser Ala Lys Asn	
103				1		5	
105	gat	gat	aac	gaa	ggg	aag gtc atg gaa agt	463
106	Asp	Asp	Asn	Glu	Gly	Lys Val Met Glu Ser Val Asp Gln Ala Asn Ala	
107				10		15	20
109	att	agt	aag	gtg	gat	gaa cat atc aag	511
110	Ile	Ser	Lys	Val	Asp	Glu His Ile Lys Ala Arg	
111				10		15	20
113	ata	aaa	ttt	aat	gac	tta cct aag ttg	559
114	Ile	Lys	Phe	Asn	Asp	Leu Pro Lys Leu Ala Val Gly	
115				40		45	50
117	gtg	gat	aaa	tgg	aat	gaa ttt aaa tat	607
118	Val	Asp	Lys	Trp	Asn	Glu Glu Phe Lys Tyr	
119				55		60	65
121	gat	gtt	ttg	gaa	ttt	ttg ctt gac tat	655
122	Asp	Val	Leu	Glu	Phe	Leu Asp Tyr Asn Pro	
123				75		80	85
125	gtt	aaa	aag	gta	gaa	ggt att tat	703
126	Val	Lys	Val	Glu	Gly	Ile Tyr Phe Thr Gly Trp	
127				90		95	100
129	tgt	tta	cag	tcc	att	ttt gat agg	751
130	Cys	Leu	Gln	Ser	Ile	Phe Asp Arg	
131				105		110	115
133	cta	cca	aag	cac	ttg	caa aag	799
134	Leu	Pro	Lys	His	Leu	Gln Ala Asn	
135				120		125	130
137	gat	gct	gtt	act	aaa	tct aaa gat	847
138	Asp	Ala	Val	Thr	Lys	Ser Asp Tyr	
139				135		140	145
141	ctg	aag	ttt	gta	aac	gtt gaa cat	895
142	Ser	Lys	Phe	Val	Asn	Val Glu His	
143				155		160	165
145	cca	tat	ttg	ctg	cag	gtg gaa aaa	943
146	Pro	Tyr	Leu	Ser	Gln	Val Glu Glu	
147				170		175	180

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001  
TIME: 12:13:03

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

149	act	tca	aac	gtt	gtc	gat	gag	tat	gtc	cgt	agt	ctt	cca	aat	ctc	ata	991
150	Thr	Ser	Asn	Val	Val	Asp	Glu	Tyr	Val	Arg	Ser	Leu	Pro	Asn	Leu	Ile	
151	185							190				195					
153	ggt	caa	gtc	ttg	tac	ttc	aat	cat	gtg	aag	aaa	tca	gag	gct	tta	agt	1039
154	Gly	Gln	Val	Leu	Tyr	Phe	Asn	His	Val	Lys	Lys	Ser	Glu	Ala	Leu	Ser	
155	200							205				210					
157	ttg	ttt	ttg	aat	att	cat	gcc	tca	tac	tac	tca	aag	tgg	att	caa	gct	1087
158	Leu	Phe	Leu	Asn	Ile	His	Ala	Ser	Tyr	Tyr	Ser	Lys	Trp	Ile	Gln	Ala	
159	215						220			225			230				
161	gac	aat	gat	aca	tca	gta	ctc	cca	agt	tgc	tct	acc	ata	gct	gaa	gaa	1135
162	Asp	Asn	Asp	Thr	Ser	Val	Leu	Pro	Ser	Cys	Ser	Thr	Ile	Ala	Glu	Glu	
163							235			240			245				
165	atg	tgt	gat	cat	cct	gat	tat	gtc	aga	ttg	gtt	gac	att	cca	agc	aac	1183
166	Met	Cys	Asp	His	Pro	Asp	Tyr	Ala	Arg	Leu	Val	Asp	Ile	Pro	Ser	Asn	
167		250					255			260							
169	aaa	tat	gaa	ctt	aat	ctt	att	gtt	agt	tta	cca	gca	cca	gag	aaa	cca	1231
170	Lys	Tyr	Glu	Leu	Asn	Leu	Ile	Val	Ser	Leu	Pro	Ala	Pro	Glu	Lys	Pro	
171		265					270			275							
173	aaa	gga	aaa	cca	gag	gag	aac	tca	ctg	gaa	caa	tct	caa	aag	aag	aac	1279
174	Lys	Gly	Lys	Pro	Glu	Glu	Asn	Ser	Ser	Glu	Gln	Ser	Gln	Lys	Lys	Asn	
175		280					285			290							
177	ctg	aaa	tca	aga	aag	aga	aat	aag	aaa	cat	cca	aaa	tca	gat	aac	gat	1327
178	Ser	Lys	Ser	Arg	Lys	Arg	Asn	Lys	Lys	His	Pro	Lys	Ser	Asp	Asn	Asp	
179	295				300					305			310				
181	aaa	ggt	gaa	aaa	gaa	aaa	gaa	aaa	act	tca	ctg	gaa	tga	aaa			1375
182	Lys	Gly	Lys	Glu	Lys	Glu	Lys	Glu	Lys	Lys	Thr	Ser	Ser	Glu		Lys	
183				315				320			325						
185	aca	ggt	gct	tct	att	aat	tgt	gtt	atg	aat	ata	cat	aat	tgc	agc		1423
186	Thr	Gly	Ala	Ala	Ser	Ile	Asn	Cys	Val	Met	Asn	Ile	His	Asn	Cys	Ser	
187				330				335			340						
189	aaa	acc	acg	ttt	cca	gta	gaa	aat	tct	cat	tct	ctt	aat	gct	tct	ttg	1471
190	Lys	Thr	Thr	Phe	Pro	Val	Glu	Asn	Ser	His	Ser	Leu	Asn	Ala	Ser	Leu	
191		345					350			355							
193	aac	gta	atg	aat	ttt	aaa	ggt	tta	agg	ttt	aac	aag	tat	cta	gtg	tat	1519
194	Asn	Val	Met	Asn	Phe	Lys	Gly	Leu	Arg	Phe	Asn	Lys	Tyr	Leu	Val	Tyr	
195		360					365			370							
197	gat	act	ggt	gcc	aca	ata	tct	gtt	gtg	aac	aat	aaa	gat	ata	ttg	ctg	1567
198	Asp	Thr	Gly	Ala	Thr	Ile	Ser	Val	Val	Asn	Asn	Lys	Asp	Ile	Leu	Ser	
199		375					380			385							
201	aat	gtt	aag	gac	gca	aca	att	gaa	gtt	tct	gtt	gct	gat	ggt	gct	aca	1615
202	Asn	Val	Lys	Asp	Ala	Thr	Ile	Glu	Val	Ser	Val	Ala	Asp	Gly	Ala	Thr	
203	390				395					400			405				
205	tta	gaa	gca	gat	tgt	att	ggt	gat	cta	att	atc	aga	gtc	ggt	att	gtc	1663
206	Leu	Glu	Ala	Asp	Cys	Ile	Gly	Asp	Leu	Ile	Ile	Arg	Val	Gly	Ile	Val	
207		410					415			420							
209	tcg	att	acg	tta	gag	aat	aca	ttg	tat	tta	cca	gaa	agt	tcc	ttt	aat	1711
210	Ser	Ile	Thr	Leu	Glu	Asn	Thr	Leu	Tyr	Leu	Pro	Glu	Ser	Ser	Phe	Asn	
211		425					430			435							
213	ctt	gtg	agt	ttg	aaa	caa	att	gaa	gaa	cga	gga	ttt	aat	gtt	ctt	att	1759

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001  
TIME: 12:13:03

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

214	Leu	Val	Ser	Leu	Lys	Gln	Ile	Glu	Glu	Arg	Gly	Phe	Asn	Val	Leu	Ile	
215	440				445					450							
217	act	aaa	gaa	tca	gtg	att	gta	ttt	aac	caa	aat	gtg	gct	cct	act	att	1807
218	Thr	Lys	Glu	Ser	Val	Ile	Val	Phe	Asn	Gln	Asn	Val	Ala	Pro	Thr	Ile	
219	455				460					465							
221	att	gct	tca	agg	aag	aat	gct	gat	ctt	tat	atg	ggt	cct	caa	ttc		1855
222	Ile	Ala	Ser	Arg	Lys	Asn	Ala	Ala	Asp	Leu	Tyr	Met	Gly	Pro	Gln	Phe	
223	470				475					480					485		
225	agt	gaa	gaa	tct	tta	gaa	tgt	gat	ttt	gat	tat	gat	ggt	ttg	gca	gat	
226	Ser	Glu	Glu	Ser	Leu	Glu	Cys	Asp	Phe	Asp	Tyr	Asp	Gly	Leu	Ala	Asp	
227	490				495					500							
229	atg	ttg	tcc	aat	gct	aac	caa	gat	gac	aaa	gat	aaa	tca	agt	atg	aat	
230	Met	Leu	Ser	Asn	Ala	Asn	Gln	Asp	Asp	Lys	Asp	Lys	Ser	Ser	Met	Asn	
231	505				510					515							
233	gaa	atg	tca	gaa	tat	caa	gaa	cat	gat	tat	agt	tct	cga	gca	tta	ata	
234	Glu	Met	Ser	Glu	Tyr	Gln	Glu	His	Asp	Tyr	Ser	Ser	Arg	Ala	Leu	Ile	
235	520				525					530							
237	aat	tct	ttg	acg	gag	gtt	gat	gtt	tta	gat	gtt	gaa	att	tcc	cca	tat	
238	Asn	Ser	Leu	Thr	Glu	Val	Asp	Val	Leu	Asp	Val	Glu	Ile	Ser	Pro	Tyr	
239	535				540					545							
241	gga	gtt	gaa	caa	ttg	cta	cca	act	gga	gat	aag	aac	gat	att	tat	aat	
242	Gly	Val	Glu	Gln	Leu	Leu	Pro	Thr	Gly	Asp	Lys	Asn	Asp	Ile	Tyr	Asn	
243	550				555					560					565		
245	ttc	cat	ttg	atg	tca	aat	cat	atg	tcc	att	gag	aaa	atc	ttg	ttg	tta	
246	Phe	His	Leu	Met	Ser	Asn	His	Met	Ser	Ile	Glu	Lys	Ile	Leu	Leu		
247	570				575					580							
249	caa	aaa	tac	cag	ggt	ctc	gta	ctt	cac	act	tca	aaa	gag	agt	ctt	caa	
250	Gln	Lys	Tyr	Gln	Gly	Leu	Val	Leu	His	Thr	Ser	Lys	Glu	Ser	Leu	Gln	
251	585				590					595							
253	aag	att	gct	gat	tgt	aag	gta	tgt	cta	tta	tcg	aat	gcc	aaa	cag	aga	
254	Lys	Ile	Ala	Asp	Cys	Lys	Val	Cys	Leu	Leu	Ser	Asn	Ala	Lys	Gln	Arg	
255	600				605					610							
257	agt	cac	aat	cat	cat	tca	gaa	aga	aaa	gcc	tcg	aga	aga	cat	gag	aga	
258	Ser	His	Asn	His	His	Ser	Glu	Arg	Lys	Ala	Ser	Arg	Arg	His	Glu	Arg	
259	615				620					625							
261	ctt	cat	tgt	gat	act	ctc	ggt	cca	ttt	agg	tcc	gaa	aat	aac	aag	tgg	
262	Leu	His	Cys	Asp	Thr	Leu	Gly	Pro	Phe	Arg	Ser	Glu	Asn	Asn	Lys	Trp	
263	630				635					640					645		
265	tat	tta	acg	tct	gtt	ata	gat	gaa	cat	acg	ggt	tac	att	gaa	gga	att	
266	Tyr	Leu	Thr	Ser	Val	Ile	Asp	Glu	His	Thr	Gly	Tyr	Ile	Glu	Gly	Ile	
267	650				655					660							
269	att	act	aaa	gac	aga	aag	gta	aag	gat	ctc	tta	att	caa	cga	tta	aag	
270	Ile	Thr	Lys	Asp	Arg	Lys	Val	Lys	Asp	Leu	Leu	Ile	Gln	Arg	Leu	Lys	
271	665				670					675							
273	atc	tgg	aat	aat	cgg	ttt	aac	gat	aag	gtg	gca	tac	tcc	aga	agt	gat	
274	Ile	Trp	Asn	Asn	Arg	Phe	Asn	Asp	Lys	Val	Ala	Tyr	Phe	Arg	Ser	Asp	
275	680				685					690							
277	aat	gct	cct	gag	ttc	cca	caa	cct	tct	gat	tta	gct	gag	ttc	ggt	att	
278	Asn	Ala	Pro	Glu	Phe	Pro	Gln	Pro	Ser	Asp	Leu	Ala	Glu	Phe	Gly	Ile	

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001  
TIME: 12:13:03

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

279	695	700	705														
281	tgg	agg	gag	act	ata	gcg	gca	tat	ctg	cct	gag	ctt	aat	ggt	ctc	gcc	2575
282	Trp	Arg	Glu	Thr	Ile	Ala	Ala	Tyr	Ser	Pro	Glu	Leu	Asn	Gly	Leu	Ala	
283	710				715				720					725			
285	gag	gtt	aat	aaa	ttg	att	tta	caa	cag	att	tac	agg	atc	gtt	gtg	2623	
286	Glu	Val	Val	Asn	Lys	Leu	Ile	Leu	Gln	Gln	Ile	Tyr	Arg	Ile	Val	Val	
287						730			735					740			
289	aca	cct	ggt	cca	caa	ata	ctc	aag	ttg	att	tat	tat	gtg	att	caa	tat	2671
290	Thr	Leu	Gly	Pro	Gln	Ile	Leu	Lys	Leu	Ile	Tyr	Tyr	Val	Ile	Gln	Tyr	
291						745			750					755			
293	tct	att	aca	atg	atc	aac	cac	act	cca	cgt	cgt	tca	ctc	aag	gga	caa	2719
294	Ser	Ile	Thr	Met	Ile	Asn	His	Thr	Pro	Arg	Arg	Ser	Leu	Lys	Gly	Gln	
295						760			765					770			
297	acc	cct	tat	ggt	tgc	tat	tat	caa	tta	agt	gag	gga	aat	ttc	tac	cgg	2767
298	Thr	Pro	Tyr	Gly	Cys	Tyr	Tyr	Gln	Leu	Ser	Glu	Gly	Asn	Phe	Tyr	Arg	
299						775			780					785			
301	ttt	cct	ttt	gcc	atc	gat	tgt	gtc	gtt	aca	ttt	agt	aat	gcc	atc	gaa	2815
302	Phe	Pro	Phe	Ala	Ile	Asp	Cys	Val	Val	Thr	Phe	Ser	Asn	Ala	Ile	Glu	
303						790			795					800		805	
305	aag	aac	cgt	tac	gga	gtt	aca	tca	act	aaa	gga	gct	cct	tca	tcg	atc	2863
306	Lys	Asn	Arg	Tyr	Gly	Val	Thr	Ser	Thr	Lys	Gly	Ala	Pro	Ser	Ser	Ile	
307						810			815					820			
309	atg	ggt	gct	gtg	att	ggc	tac	gct	agc	gat	tgt	ttt	agt	tat	tac	gtg	2911
310	Met	Gly	Ala	Val	Ile	Gly	Tyr	Ala	Ser	Asp	Cys	Phe	Ser	Tyr	Tyr	Val	
311						825			830					835			
313	ttg	cta	aaa	aat	atg	cgg	tgt	gat	att	atc	ctt	agc	cct	aat	gtc	cgt	2959
314	Leu	Leu	Lys	Asn	Met	Arg	Cys	Asp	Ile	Ile	Leu	Ser	Pro	Asn	Val	Arg	
315						840			845					850			
317	ata	ttg	cga	agc	tat	gag	gtt	att	aac	tcc	tat	ctc	aaa	aac	tta	tcc	3007
318	Ile	Leu	Arg	Ser	Tyr	Glu	Val	Ile	Asn	Ser	Tyr	Leu	Lys	Asn	Leu	Ser	
319						855			860					865			
321	act	aca	cct	atg	tca	cac	att	gtt	cct	atg	gct	gaa	ggg	atc	cag	gga	3055
322	Thr	Thr	Pro	Met	Ser	His	Ile	Val	Pro	Met	Ala	Glu	Gly	Ile	Gln	Gly	
323						870			875					880		885	
325	agg	caa	ctg	ggc	gct	cag	tac	gag	gta	cgc	gga	aca	tat	gtg	gaa	agt	3103
326	Arg	Gln	Ser	Gly	Ala	Gln	Tyr	Glu	Val	Arg	Gly	Thr	Tyr	Val	Glu	Ser	
327						890			895					900			
329	gaa	tat	gac	aat	aca	aat	gac	gtg	atg	cac	atg	ccc	aaa	gag	tca	tat	3151
330	Glu	Tyr	Asp	Asn	Thr	Asn	Asp	Val	Met	His	Met	Pro	Lys	Glu	Ser	Tyr	
331						905			910					915			
333	tca	gtt	cag	cca	gca	tcg	ttt	act	tta	act	acg	ggt	aac	agt	tct	aat	3199
334	Ser	Val	Gln	Pro	Ala	Ser	Phe	Thr	Leu	Thr	Thr	Gly	Asn	Ser	Ser	Asn	
335						920			925					930			
337	gaa	tat	gtt	ata	aat	gat	gat	cca	gta	cag	att	acc	att	gag	aat	ccc	3247
338	Glu	Tyr	Val	Ile	Asn	Asp	Asp	Pro	Val	Gln	Ile	Thr	Ile	Glu	Asn	Pro	
339						935			940					945			
341	gat	gat	gtt	tct	aac	cct	ttt	caa	cta	act	gaa	gaa	tca	cac	gat	atg	3295
342	Asp	Asp	Phe	Ser	Asn	Pro	Leu	Gln	Leu	Thr	Glu	Glu	Ser	His	Asp	Met	
343						950			955					960		965	

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001  
TIME: 12:13:04

Input Set : A:\Cpg.pto  
Output Set: N:\CRF3\05092001\I430590E.raw

L:1161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:1185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:1501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
L:1613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1935 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:2131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:2255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17  
L:2275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:2323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:2325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:2327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:2365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:2505 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:3156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:3280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:3438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:3502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:3552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:3634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29  
L:3654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30  
L:3656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30  
L:3768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31  
L:3830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32  
L:3886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:4002 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:4004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:5088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/430,590E

DATE: 05/09/2001

TIME: 12:13:04

Input Set : A:\Cpg.pto

Output Set: N:\CRF3\05092001\I430590E.raw

L:6060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111

L:8916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139

<210> 150  
<211> 32  
<212> DNA  
<213> Artificial Sequence

<400> 150  
cgacggctgc agccttcaca tttataattt gc

32

PST

see item 12 on Exam Summary Sheet

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.